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REMARKS

I. Status

In the Office Action mailed December 10, 2003, the Examiner noted that claims 1-7 were pending and rejected claims 1-7. The applicants respectfully traverses the rejection.

II. Oath Declaration

It is not required by the statutes or by the related rules to state a domestic priority claim in the declaration. To claim domestic priority under 35 U.S.C. 120, applicant must comply with 37 CFR 1.78 which requires, in part, that the priority claim information be in either the first line of the specification or in an application data sheet. 37 CFR 1.78 (2) (iii). The specification was amended in the Amendment of September 24, 2003 to include domestic priorities.

III. Specification

The Examiner requested detailed support for claims 1-10. FIGs 11, 12, and 13 illustrate an overview of one possible example of the apparatus and method of claims 1-10. A display mechanism is shown in FIG. 13. Components of the decoding process are illustrate in FIG. 11. Support for tokens starts on page 51, and on page 104, line 23 to page 108, line 29. Support for the "formatter" is on page 134, line 9 to page 135, line 27.

Further information of the structure and operation of the invention of claims 1-11 is given in an illustrative embodiment of the invention which is set for in sections 1-27 (see page 84, line 30 to page 85, line 22). Components of the decoding process are illustrated, such as the Inverse Modeler 23 (page 146, lines 20-31), Inverse Quantizer 24 (page 146, line 33 to page 147, line 28),

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Huffman Decoder and Parser 25 (page 147, line 19 to page 151, line 12), and
Diverse Discrete Cosine Transformer 26 (page 151, line 13 to page 152, line 5).

The Specification discloses the inverse modeller in section 23 on page
146, lines 20-31 and Section B.5 on pages 476 – 483.

IV. Response to Arguments

The Examiner requested that the Applicants point out where in the
specification detailed support is provided for the claimed invention. The
applicant has already been provided the relevant sections of the disclosure in
section "III. Specification".

As further explanation of the above disclosure, with reference to FIG. 11,
"the data arrives through the Start Code Detector, a FIFO register which
precedes a Huffman decoder and parser, through a second FIFO register, an
inverse modeller, an inverse quantizer, inverse zigzag and inverse DCT" (page
87, lines 18-28).

The specification states that the claimed invention is standard
independent. (See page 87, line 29- page 88, line 3) thus supporting the
receiving of data words of "different formats" as recited in independent claims 1
and 4.

The specification further describes the present invention in the context of
the multistandard video decoder:

> The present invention also provides, in a system having a data
> stream including run length code, an inverse modeller means
> active upon the data stream from a token for expending out the
> run level code to a run of zero data followed by a level, whereby
> each token is expressed with a specified number of value. The
> token may be a DATA token. (page 161, line 8-13).

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The specification further describes the claimed invention:

> The present invention also provides in a pipeline system having
> an inverse modeller stage and an inverse discrete cosine
> transform stage, the improvement characterized by a processing
> stage, positioned between the inverse modeller stage and the
> inverse discrete cosine transform stage, responsive to a token
> table for processing data. (page 16j, lines 29-34).

The specification describes the claimed invention, the inverse modeller, within
the context of the multistandard decoder, with reference to FIG. 11: "A first
output 72 from the T/F 71 of the present invention is passed over line 72 to a
second FIFO 73. The output from the second FIFO 73 is passed over line 74 as
a first input to an inverse modeller 75." (page 74, line 11- 14).

The claimed invention is further described in Section 23 INVERSE
MODELLER, as follows:

> Inverse modeling is a feature of all three standards, and is the
> same for all three standards. In general, DATA tokens in the
> token buffer contain information about the values of the quantized
> coefficients, and about the number of zeros between the
> coefficients that are represented (a form of run length coding).
> The Inverse Modeller of the present invention has been adapted
> for use with tokens and simply expands the information about
> runs of zero so that each DATA Token contains the requisite 64
> values. Thereafter, the values in the DATA Tokens are quantized
> coefficients which can be used by the Inverse Quantizer. (page
> 146, lines 20-31).

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The details of the claimed invention are further described in Section B:5 on pages 476 – 483.

As for points 1-8, neither Horvath nor Morrison disclose an apparatus or method processing data words of "different respective formats". The only evidence the examiner has submitted for this is a section from the Background of the Invention of Horvath et al. as follows:

> Image compression and decompression (CODEC) techniques, such as those referred to as the Joint Photographic Experts Group (JPEG) and the Motion Picture Experts Group (MPEG), make use of a discrete cosine transform (DCT) function. These techniques divide an image into many small areas, referred to as blocks. The blocks are then processed sequentially within a process-pipeline that includes high speed hardware for implementing the DCT-related functions (column 1, lines 33-41).

However, the above section merely comments that both MPEG and JPEG make use of a DCT function, but does not disclose or suggest the present invention which receives data words of "different respective formats" (independent claims 1 and 4). The Applicants respectfully request the Examiner supply a reference disclosing an apparatus or method which is able to process different formats or standards as recited in the present invention or drop the rejection.

V. Rejection of claims under 35 U.S.C. § 102

Claims 1-4 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Horvath et al.

To support the allegation that Horvath et al. discloses receiving a

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sequence of data words of a predetermined width, the Office Action cites to
column 1, lines 15-25 and lines 37-41 and column 9, lines 32-34 of Horvath et
al. However, the Applicants respectfully submits that these sections do not
disclose receiving "data words". But rather, these sections refer to processing
"blocks of data".

To support the allegation that Horvath et al. discloses "different
respective format", the Office Action cites to column 1, lines 33-37 and column
10, lines 20-37 of Horvath et al. However, the Applicants respectfully submits
that these sections do not disclose this feature as recited in claim 1. Column 1,
lines 33-37 describes in the Background of the Invention that both JPEG and
MPEG have a discrete cosine transform. However, this section does not
describe a method of receiving data words having "different respective formats"
(claim 1, lines 2-3). Column 10, lines 20-37 of Horvath et al. appears to only
refer to a decoding function of an MPEG decoder. Thus, neither sections
disclose the present invention "receiving a sequence of data words of a first
predetermined width and different respective formats" (claim 1, lines 2-3).

To support the allegation that Horvath et al. discloses splitting the data
words of the received sequence to form new data words of a new sequence,
the Office Action cites to column 6, line 63- column 7, line 3 and column 7, line
62 – column 8, line 2 of Horvath et al. However, the Applicants respectfully
submits that these sections do not disclose these features. Column 6, line 63 –
column 7, line 3 discloses a function composing blocks of RLC image data.
Column 7, line 62 – column 8, line 2 merely refers to blocks of image data.
Thus, neither sections disclose "splitting the data words of the received
sequence to form new data words of a new sequence" (claim 1, lines 4-5).

To support the allegation that Horvath et al. discloses packing the
consecutive new data words consecutively in a token buffer of a second width
without holes between the packed new data words, the Office Action cites to
column 8, lines 3-24 of Horvath et al. However, the Applicants respectfully
submits that these sections do not disclose these features. Column 8, lines 3-

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24 refer to a function of producing 64 coefficients per data block which is unrelated to "packing the consecutive new data words consecutively in a token buffer of a second width without holes between the packed new data words" (claim 1, lines 6-7).

To support the allegation that Horvath et al. discloses unpacking data words to reproduce the new sequence of data words, the Office Action cites to claim 14 of Horvath et al. However, the Applicants respectfully submits that these sections do not disclose this feature. But rather, claim 14 discloses a means for encoding and decoding (CODEC) blocks of image data. Claim 14 does not disclose "unpacking the data words to reproduce the new sequence of new data words" (claim 1, line 8).

As for claim 2, column 8, lines 11-14 and column 13, lines 17-18 discloses an "image buffer" but does not disclose a "token buffer" as recited in claim 1. The cited prior art does not disclose "data tokens" or "tokens" or a "token buffer" (claim 1, line 6) as cited in claims 1-7. A "token" of the present invention is defined in the specification as "interactive interfacing messenger package for control and for data functions." (page 24b, lines 11-13). This entails a technology more powerful than a traditional token, for example, in the context of token rings, or a traditional packet of information. Horvath et al. does not disclose this technology.

As for claim 3, although column 6, lines 6-9 and column 7, lines 3-6 discloses run length coding, these sections do not disclose "expanding out run length code in the unpacked words" (claim 3).

As for claim 4, to support the allegation that Horvath et al. discloses a data unpacker to unpack data words received from an input terminal to a different length format, the Office Action cites to column 6, line 63- column 7, line 3 and column 7, line 62 – column 8, line 2 of Horvath et al. However, the Applicants respectfully submits that these sections do not disclose these features. Column 6, line 63 – column 7, line 3 discloses a function composing blocks of RLC image data. Column 7, line 62 – column 8, line 2 merely refers

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to blocks of image data. Thus, neither sections disclose "a data unpacker to unpack data words received from an input terminal to a different length format" (claim 4, lines 2-3). Furthermore, column 8, lines 3-24 refer to a function of producing 64 coefficients per data block. Column 4, lines 10-12 mentions that a stream of DCT coefficients frequently contain long runs of zeros. Thus, neither section discloses the "data expander" nor "data padder" of claim 4.

Therefore, the present invention recited in claims 1-4 is not rendered obvious by the cited prior art.

VI. Rejection of claims under 35 U.S.C. § 103(a)

Claims 5-7 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Horvath et al. in view of Morrison et al.

As for claim 5, the Office Action admits that Horvath et al. does not disclose the data expander expanding out run length codes into runs of zero followed by a level in the packed data. However, the Office Action alleges that column 7, lines 40-54 of Morrison et al. does. Although the cited section of Morrison et al. discloses a run length code, it does not disclose "a data expander" expanding out the run length codes as recited in claim 5.

Thus, neither of the references Horvath et al. nor Morrison et al. separately, or in combination, have disclosed the above features of claims 5-7.

Column 2, lines 32-35 and column 4, lines 13-15 of Morrison et al. do not show a "data padder" as recited in claim 6. Column 5, lines 1-47 of Morrison et al. discloses processing of a group of data blocks and does not show the "data unpacker" recited in claim 7.

Therefore, the present invention recited in claims 5-7 is not rendered obvious by the cited prior art.

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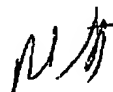
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VII. Concluding Matters

In view of the foregoing remarks, it is respectfully submitted that each of the claims distinguishes over the prior art, and therefore, defines allowable subject matter. A prompt and favorable reconsideration of the rejection along with an indication of allowance of all the pending claims is respectfully requested.

Should there be any remaining questions to correct format matters, it is urged that the Examiner contact the undersigned attorney with a telephone interview to expedite and complete prosecution.

If any further fees are required in connection with the filing of this response, please change same to our Deposit Account No. 04-1175.

Respectfully submitted,

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Date: _March 8, 2004_

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